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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,089	10/25/2000	Takeshi Maeda	500.37445CX1	2432
20457	7590 09/24/2003			
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800			EXAMINER	
			CHU, KIM KWOK	
ARLINGTON, VA 22209-9889			ART UNIT	PAPER NUMBER
		•	2653	13
			DATE MAILED: 09/24/2003	//

Please find below and/or attached an Office communication concerning this application or proceeding.

In

	Application No.	Applicant(s)				
,	09/695,089	MAEDA ET AL.				
Office Action Summary	Examiner	Art Unit				
	Kim-Kwok CHU	2653				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period was Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	66(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
Status	andmont filed on 6/46/02 (nonex 4	2)				
1) Responsive to communication(s) filed on <u>Ame</u>	s action is non-final.	<u>2)</u> .				
2a) ☐ This action is <b>FINAL</b> . 2b) ☐ Thi  3) ☐ Since this application is in condition for allowa		accoution as to the morits is				
closed in accordance with the practice under <i>l</i> Disposition of Claims						
4)⊠ Claim(s) 7-16,19 and 20 is/are pending in the	application.					
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>7-16,19 and 20</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or	election requirement.					
Application Papers						
9) The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner.						
Applicant may not request that any objection to the						
11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.						
If approved, corrected drawings are required in reply to this Office action.  12) The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
<u> </u>	priority under 35 H S C & 110/a	\.(d) or (f)				
13)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a)⊠ All b)□ Some * c)□ None of:						
1.⊠ Certified copies of the priority documents	s have been received					
2. ☐ Certified copies of the priority documents		on No				
	• •					
<ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
a) The translation of the foreign language pro-	• •					
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informal F	(PTO-413) Paper No(s) Patent Application (PTO-152)				

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## Response to Remarks

- 1. Applicant's Remarks filed on June 16, 2003 have been fully considered but they are not persuasive.
- (a) Applicant states that the prior art of Fuji provides no disclosure or teaching of "information of edge shifting values of at least one of a leading and trailing edge of at least one recording pulse as recited in claims 7 and 8" (page 7 of the Remarks, lines 6-8). Accordingly, the claimed "edge shifting values" are data representing relationships between pulses. For example, Lee in Fig. 6 discloses that a lookup table 2 which generates recording pulses data (column 7, lines 54-64). The recording pulse data is inputted to drive the power controller 4 which generates writing or recording pulses such as L1, L2, L3 etc. with variable edge positions between pulses (Fig. 1A and 1B). In other words, the generated pulses such as L1, L2 and L3 have edge shifting values as expressed in the form of mark lengths, mark spaces which are based on the look-up table's pulse relationship; and
- (b) Applicant states that the edge shifting values is functional (operational) rather than being non-functional descriptive material. Accordingly, a look-up table is non-functional means when it is not used for any functional purpose, as it is merely information on a disk. Once the look-up table is used to affect the operation of the storage device, it crosses

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over to functional subject matter.

## Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 7, 9-16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuji (U.S. Patent 6,310,846) in view of Lee (U.S. Patent 5,241,524).

Fuji teaches a recording medium having elements and means very similar to that of the instant invention. For example, Fuji teaches the following:

- (a) as in claim 7, a disk-shaped substrate 40 (Fig. 4);
- (b) as in claim 7, at least one track being provided on the substrate (Fig. 6al);
- (c) as in claim 7, a zone including at least one track (Fig. 8; a recording zone/area is an inherent feature of the recording medium 1); and

(d) as in claim 7, the zone stores a lookup table 57 which stores a pulse pattern (Fig. 2; column 4, lines 28-33).

However, Fuji does not teach the following:

(a) as in claims 7, 9-16 and 19, the lookup table includes a pulse pattern such as edge values about the waveform of a pulse train.

Lee teaches a look up table 2 which stores a list of pulse formation values (pattern) such as pulse widths, length and intervals (Fig. 6; column 7, lines 54-64).

As in claims 7, 9-16 and 19, a look-up table as a form of data stored in a recording medium such as Applicant's and Fuji's is considered as a non-functional descriptive material. And it is obvious to store any type of data such as Applicant's and Fuji's non-functional descriptive material on a disk.

With respect to the type of data in a look-up table, for example, Lee uses a look up table to store non-functional descriptive material such as a list of predetermined values of pulse widths, lengths and intervals etc. When there is a motivation of determining a predetermined shape of pulse/mark length, it would have been obvious to one of ordinary skill in the art at the time of invention to store Lee's mark length values in a look up table such as Fuji's, because the values of the mark length can be obtained instantly without going through a calculation process.

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Furthermore, since Fuji stores a mark control pattern in his disk region 57, it would have been obvious to one of ordinary skill in the art to use a disk region similar to 57 as a look up table instead of Lee's RAM type lookup table, because hardware such as a RAM/ROM is not needed.

- 4. Claim 8 has limitations similar to those treated in the above rejection(s), and are met by the references as discussed above.
- 5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action

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6. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C. 20231 Or faxed to:

(703) 872-9314 (for formal communications intended for entry. Or:

(703) 746-6909, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim CHU whose telephone number is (703) 305-3032 between 9:30 am to 6:00 pm, Monday to Friday.

14/03

Kim-Kwok CHU Examiner AU2653 September 4, 2003

(703) 305-3032

WILLIAM KORZUCH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600